



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/808,946

03/24/2004

Shunji Kawamura

16869N-111900US

6341

20350

7590

05/01/2006

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

CHU, GABRIEL L

ART UNIT

PAPER NUMBER

2114

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,946

Applicant(s)

KAWAMURA ET AL.

Examiner

Gabriel L. Chu

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-19 is/are allowed.
- 6) ☒ Claim(s) 1,2,9 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 3-8,10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20051221.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 2, 9, 12-14 rejected under 35 U.S.C. 102(e) as being anticipated by US 20040172509 to Takeda et al.** Referring to claim 1, Takeda discloses a primary site which includes a first computer and a first storage system connected to said first computer (Figure 3, 10.);

and a secondary site which includes a second computer and a second storage system connected to said second computer (Figure 3, 20.);

wherein, said first storage system and said second storage system are connected to each other via a communication line (Figure 1, 68. Figure 3, 5500. From the abstract, "The data transfer path is different from the first communication link.");

said first storage system records update history of data as a journal in a storage device (Figure 3, 2222A.), and transfers said journal to said second storage system via said communication line in such a way that said second computer is not in a transport path of said journal from said first storage to said second storage system (Figure 3, 5600.);

and said second storage system stores said transferred journal to a storage device (Figure 3, 2222B, 2214.).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

3. Referring to claim 2, Takeda discloses said second storage system executes data recovery based on said stored journal (Figure 3, 2124, 5800. Further, see paragraph 8 of Applicant's specification.).

4. Referring to claim 9, Takeda discloses said second storage system acquires information related to a journal recorded in said first storage system (Paragraph 74, "The primary host 100A communicates the information on the journal creation state acquired to the secondary host 100B via the IP network 48, so that the remote replication process can be coordinated by the two host devices (Step 5000). One of the use of this information is to notify the hosts 100A and 100B as to when the journal in the journal volume 2222A is ready to be copied to the secondary disk device 200B." Paragraph 75, "The secondary host 100B executes the asynchronous copy manager 150 and issues the journal copy request command to the secondary disk array device 200B in accordance with an instruction from the user inputted through GUI or a predetermined schedule or via a notification from the primary host 100A (Step 5400)."),

and said second storage system issues a command requesting said first storage system to send said journal (Paragraph 77, "The storage controller 210B of the secondary disk array device 200B receives the journal copy request command and issues a read command to the primary disk array device 200A by executing the copy program (Step 5500). The primary disk array device 200A receives the read command and transmits the journal specified by the read command to the secondary disk array device 200B (Step 5600).").

5. Referring to claim 12, Takeda discloses a primary site which includes a first computer and a first storage system connected to said first computer (Figure 3, 10.);

and a secondary site which includes a second computer and a second storage system connected to said second computer (Figure 3, 20.);

wherein, said first computer and said second computer are connected to each other via a first communication line (Figure 1, 48. Figure 3, 5000.),

said first storage system and said second storage system are connected to each other via a second communication line (Figure 1, 68. Figure 3, 5500. From the abstract, "The data transfer path is different from the first communication link."),

said first storage system records data update history in a storage device as a journal (Figure 3, 2222A.),

said first computer acquires information related to said journal from said first storage system and transmits the information to said second computer via said first communication line (Paragraph 74, "The primary host 100A communicates the information on the journal creation state acquired to the secondary host 100B via the IP

Art Unit: 2114

network 48, so that the remote replication process can be coordinated by the two host devices (Step 5000). One of the use of this information is to notify the hosts 100A and 100B as to when the journal in the journal volume 2222A is ready to be copied to the secondary disk device 200B." Paragraph 75, "The secondary host 100B executes the asynchronous copy manager 150 and issues the journal copy request command to the secondary disk array device 200B in accordance with an instruction from the user inputted through GUI or a predetermined schedule or via a notification from the primary host 100A (Step 5400)."),

said first storage system transfers said journal to said second storage system via said second communication line in such a way that said second computer is not in a transport path of said journal from said first storage system to said second storage system (Figure 3, 5600.),

and said second storage system stores the transferred journal in a storage device (Figure 3, 2222B, 2214.).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. Referring to claim 13, Takeda discloses said second storage system issues a command requesting said first storage system to send said journal (Paragraph 77, "The

Art Unit: 2114

storage controller 210B of the secondary disk array device 200B receives the journal copy request command and issues a read command to the primary disk array device 200A by executing the copy program (Step 5500). The primary disk array device 200A receives the read command and transmits the journal specified by the read command to the secondary disk array device 200B (Step 5600).”).

7. Referring to claim 14, Takeda discloses data recovery in said second storage system is executed by a recovery program to be executed on said second computer based on said transferred journal (Figure 3, 2124, 5800. Further, see paragraph 8 of Applicant's specification.).

Allowable Subject Matter

8. **Claim 3-8, 10, 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.** Referring to claim 3-5, the prior art does not teach or fairly suggest, in light of the parent claims, said journal recorded in the storage device of said first storage system is stored in a plurality of logical volumes, and while the journal is stored in a certain logical volume, a logical volume for storage is switched to another logical volume.

9. Referring to claim 6-8, the prior art does not teach or fairly suggest, in light of the parent claims, said transferred journal in said second storage system is stored in a plurality of logical volumes, and while the journal is transferred to a certain logical volume, a transfer-target logical volume is switched to another logical volume.

Art Unit: 2114

10. Referring to claim 10, the prior art does not teach or fairly suggest, in light of the parent claims, said journal recorded in a storage device of said first storage system is stored in a plurality of logical volumes, a logical volume for storage is switched to another logical volume, while the journal is stored in a certain logical volume, and said switching is made at a time when a command for requesting dispatch of said journal is received from said second storage system.

11. Referring to claim 11, the prior art does not teach or fairly suggest, in light of the parent claims, said transferred journal in said second storage system is stored in a plurality of logical volumes, a transfer-target logical volume is switched to another logical volume, while the journal is transferred to a certain logical volume, and said switching is made at a time when said journal transfer is started at said first storage system.

12. Claims 15-19 allowed.

Conclusion

13. This is a request for continued examination of applicant's earlier Application No. 10/808946. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (571) 272-3656. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/808,946
Art Unit: 2114

Page 9

A handwritten signature in black ink, appearing to read 'SB', is positioned above the printed name.

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER